

Introduction

The following document presents preliminary results of recently completed Phase III Stage 2 Data Recovery excavations at Site 7NC-E-152, in Duross Heights, New Castle County, Delaware. This report was requested by representatives from the Delaware Department of Transportation (DelDOT) and State Historic Preservation Office (DE SHPO) following an on-site meeting held January 20, 2005. Its specific purpose is to summarize cultural resources actions and findings to date, and to provide DESHPO review staff with sufficient information to establish that completed archaeological investigations of the site constitute an acceptable mitigation of potential construction related impacts. Information presented in this document is based on field artifact counts and identifications only. Detailed laboratory analyses of recovered artifacts and site interpretations will be completed in a subsequent stage of the investigation.

The archaeological investigations discussed below were conducted in accordance with, and pursuant to the requirements of all applicable federal and state regulations, and specifically Section 106 of the National Historical Preservation Act (NHPA) of 1966, as amended.

Summary of Phase I and Phase II Testing

The **Phase I** Survey of the Airport and Churchmans Road Intersection project area was conducted during the Winter of 2000 and the Spring of 2001, and initially identified Site 7-NC-E-152 along the west side of Airport Road, a short distance north of the intersection with Churchmans Road. Placement of 32 close interval (50 feet / 15 meters) shovel tests through this area (see Figure 1) revealed the site to extend over an approximate 300-foot long terrace landform overlooking a series of first order tributary streams and expansive wetlands associated with the nearby Christina River. Testing recovered a total of 64 prehistoric artifacts from both A and B-horizon soil horizons, and included both bifacial and unifacial tools, simple flake tools, manufacturing debris, cores, and fire-cracked-rock. Temporally diagnostic artifacts recovered from the site were represented by a single quartzite triangular point fragment.

Phase II subsurface examinations were completed in April and May 2002 and involved the excavation of 25 one-by-one meter square excavation units (EUs), along with a series of 27 supplemental close interval shovel test pits (Figure 1). Completion of these excavations resulted in the recovery of a total of 814 prehistoric and 126 historic artifacts. Native American artifacts were represented by pieces of lithic manufacturing debitage, a number of both formalized (diagnostic bifaces and unifacially-worked pieces) and expedient tool forms (utilized flakes, hammerstones, etc.), and quantities of fire-cracked rock. No prehistoric pottery was identified in any portion of the site. Historic materials include a variety of domestic and architectural objects potentially dating to the late eighteenth through twentieth centuries. These latter artifacts could not be positively associated with any known historic structure or past residence, and were not interpreted as comprising a significant cultural component within the larger site.

The basic stratigraphic sequence encountered throughout the site consisted of an upper organic-rich horizon of varying thickness directly overlying undisturbed subsoil deposits. The uppermost stratum generally consists of two distinct components: a westward thinning upper level that includes recent colluvial soils likely derived from the adjacent Churchmans Road bed and berm (Ap1), and an underlying horizon that has experienced prior plow disturbance (Ap2). In the northernmost portions of the site, soil characteristics suggested that this area might have been less intensively farmed in the past, and therefore could be somewhat better preserved. Both components of this upper stratum have been extensively impacted by both tree root development and the actions of burrowing animals (worms/rodents).

Prehistoric artifacts recovered from the site (Table 1) were represented by a large variety of lithic raw material types, including (in order of decreasing frequency) quartz, chert, quartz crystal, quartzite, jasper,

ironstone, sandstone (predominantly hammerstones and fire-cracked rock), and chalcedony. Lithic debitage constituted the single largest artifact category (N=705; 86.6%) and consisted of items representing the full range of stone tool manufacture, from the initial testing of unmodified raw material to the refined flaking of finished formalized tool forms. Cores, tested cobbles, early reduction flakes, and finishing/tertiary flakes were only minimally represented. Hammerstones used in the reduction of raw material were present in modest numbers (N=22).

Formalized and simple flake tools from the site were represented by both bifacially and unifacially worked pieces. A total of 22 bifacial tools or tool fragments were recovered, including pieces abandoned in the early through late-stages of manufacture, as well as examples of seven (7) finished projectile points. Unifacially worked and simple retouched flake tools were present in only very small numbers (N=6) and included one finely made endscraper manufactured from quartz crystal. Of the recovered points, four (4) were triangles (three of jasper, one of chert), one was side/corner notched (quartz) and heavily re-sharpened, one consisted only of a straight sided stem fragment (chert), and one was a heavily re-sharpened, elongated lozenge-shaped/contracting stem piece with pronounced beveling along one edge.

In terms of the horizontal distribution of prehistoric artifacts, Phase II testing indicated that Native American cultural materials were present throughout the study area in the form of an expansive, generally light scatter of debitage. Within this larger scatter were identified at least four spatially distinct and non-overlapping areas of more concentrated artifact deposits (designated Clusters 1-4). The first three of these artifact clusters were located in the southern half of the site and adjacent to a small tributary stream, while the fourth was identified at the extreme northern edge of the study area. All of these concentrations exhibited one or more internal pockets of significantly higher artifact densities, possibly representing the remains of preserved individual activity areas. Potentially diagnostic projectile points were identified within the boundaries of Clusters 1 and 4, with the greatest number (and the majority of all recovered tools) associated with the latter. Points recovered from Cluster 1 included a single chert triangle and an untyped stemmed point fragment. Cluster 4 was associated with three triangles and the notched and lozenge-shaped/contracting stem variants. The crystal endscraper was also associated with Cluster 4.

Only a single possible subsurface feature was identified at the site. Identified in EU 23, Feature 1 consisted of a small basin-shaped pit that was bisected by the west wall of the unit. Soils within the excavated half of the feature produced a single probable anvil stone. No evidence of charcoal or other non-lithic artifacts were noted within the feature fill. Two additional possible postholes were also identified in the same unit.

Based on this Phase II data Site 7NC-E-152 was initially interpreted as likely representing a series of distinct, non-overlapping, short-term Native American occupations associated with the past exploitation of locally available resources. Considering the diagnostic artifacts recovered, along with an absence of pottery, the site was thought to potentially date to the Archaic through early Woodland I culture periods (ca. 6,000-1,000 B.C.). Given the apparent preservation of intrasite horizontal artifact patterning, along with the association of possible Archaic-period triangular projectile points, this locus was believed to exhibit high research potential related to a comparatively poorly understood period in Delaware's prehistory, and was recommended for more intensive Phase III Data Recovery investigations. In 2003 the site was determined eligible for listing in the National Register of Historic Places.

Table 1: Phase II prehistoric artifact summary.

Artifact Class	Description	Quartz	Crystal	Chert	Jasper	Ironstone	Quartzite	Chalced.	Other	Totals	
POINTS	Triangle			1	3					4	(0.5%)
	Notched	1								1	(0.1%)
	Stemmed			1						1	(0.1%)
	Unidentified	1								1	(0.1%)
BIFACES	Early-stage	1		1						2	(0.2%)
	Mid-stage	2		1	1					4	(0.5%)
	Late-stage				1					1	(0.1%)
	Unidentified	4	3	1						8	(1.0%)
UNIFACES	Endscraper		1							1	(0.1%)
	Other	2		1						2	(0.2%)
FLAKE TOOL	Retouched		1	1						3	(0.4%)
DEBITAGE	Cores	2		1			1			4	(0.5%)
	Block shatter (cortex)	149	3	8	5	1	5			171	(21.1%)
	Shatter	231	32	7	5	3	1			279	(34.3%)
	De-cortication flake	8	2	11	7	1				29	(3.6%)
	Early reduct. flake	3		1						4	(0.5%)
	Thinning flake	39	10	23	9	24	5			110	(13.5%)
	Finishing flake	2	1	4	1					8	(1.0%)
	Flake fragment	62	15	11	8	5	2	1		104	(12.8%)
	Tested cobble	6		1					1	8	(1.0%)
COBBLE TOOLS	Hammerstone	3				1	9		9	22	(2.7%)
	Mano						2		1	3	(0.4%)
	Other						2		1	3	(0.4%)
FCR		10			2		16		13	41	(5.0%)
TOTALS		528 (64.8%)	68 (8.3%)	74 (9.1%)	42 (5.2%)	35 (4.2%)	43 (5.2%)	1 (0.1%)	25 (3.1%)	814	(100%)